# **Historic, Archive Document**

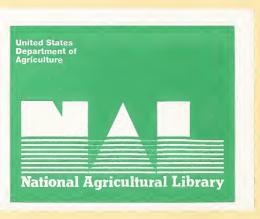
Do not assume content reflects current scientific knowledge, policies, or practices.



# CHARCOAL PRODUCTION IN THE UNITED STATES



U. S. DEPARTMENT OF AGRICULTURE FOREST SERVICE DIVISION OF FOREST ECONOMICS RESEARCH JULY 1957



## FOREWORD

This report presents data on the quantity of wood charcoal produced in the United States during 1955 and 1956, location of charcoal manufacturing facilities, major uses of charcoal, average selling prices, types and average size of kilns, and quantity, type and average cost of wood consumed in 1956.

This survey of the domestic charcoal industry was conducted primarily by the regional experiment stations of the U. S. Forest Service. Every effort was made to obtain through State Foresters, Extension Foresters, Service Foresters, County Agents and other local sources of information, a complete list of the charcoal producers in the United States in 1956. A mail canvass, with field followup of nonrespondents, was made of all producers on this list. The data in this report are based upon returns from essentially all known charcoal producers with estimates for a few nonreporting plants. Despite the care used in compiling the list of charcoal producers, it is probable that some small producers have been inadvertently omitted.

# CONTENTS

Sum	nmary	1
Cha	rcoal production in the United States 1955-56	2
	Charcoal production at post-war peak	2
	Charcoal production concentrated in the East	2
	Domestic production supplies nearly all charcoal needs	3
	Briquets a major product of charcoal plants	3
	Producers sell to a variety of markets	4
	Wide range in selling price of charcoal	4
	Large number of kilns in operation	5
	Most charcoal kilns small in size	5
	Hardwoods preferred in charcoal manufacture	6
	Roundwood accounts for 74 percent of the wood consumed	6
	Residues cheaper than roundwood	7
List	of charcoal producers	8

### SUMMARY

Charcoal production. Charcoal production in the United States during 1956 amounted to 264,990 tons. This was somewhat above production in 1955 and other post-war years, but less than half the recorded peak of 554,785 tons reached in 1909.

About 98 percent of the charcoal manufactured in 1956 was produced in 194 plants located in the East. California with 39 plants was the only Western State with a wellestablished charcoal industry.

Eight large producers accounted for about 69 percent of the 1956 production and 232 small producers for the remaining 31 percent.

Domestic producers supplied nearly all of the charcoal consumed in the United States in 1956. Imports, chiefly from Mexico and Canada, amounted to 13,522 tons, less than 5 percent of total consumption.

Charcoal markets. It is estimated that about half of the charcoal produced in 1956 was used for picnics and outdoor cooking, and by restaurants and dining cars. Industrial use was next in importance and accounted for between 35 and 40 percent of the charcoal produced. The remaining charcoal was used for a variety of miscellaneous purposes such as tobacco curing, poultry feed, and water purification.

Charcoal prices. The average selling price of lump charcoal sold in bulk in 1956 ranged from \$35.35 to \$61.40 per ton and averaged \$48.85. Because of added handling and other associated costs, the average selling price of packaged charcoal was higher, averaging 4 cents per pound, or \$80 per ton. While no production cost data were collected, there were reports that the charcoal industry was highly competitive and that the profit margins of some producers were small.

Charcoal kilns. In 1956 there were 1,516 kilns in the United States, including 604 concrete or cinder block kilns, 207 steel (beehive), 200 brick, and 505 of miscellaneous or unknown construction. About 68 percent of the kilns had a capacity of less than 11 cords of wood.

Wood consumption. About 573, 700 cords of wood was used in charcoal manufacture in 1956, an average of 2.2 cords per ton of charcoal produced. Hardwoods--chiefly oak, hickory, birch, beech, and maple--accounted for 92 percent of the wood consumed; and softwoods--chiefly pine--the remainder.

Seventy-four percent of the wood consumed in 1956 was roundwood and the remainder residues such as slabs and edgings from primary wood manufacturing plants.

The cost per cord of residues delivered at charcoal plants averaged \$8.75 compared to \$11.70 per cord for roundwood. Prices varied considerably among regions, but in all regions the cost of wood comprised a substantial part of the price of charcoal sold in bulk.

### CHARCOAL PRODUCTION IN THE UNITED STATES 1955-56

## Charcoal production at post-war peak

Charcoal production in the United States during 1956 amounted to 264,990 tons (table 1). This was slightly above the previous post-war peak of 251,784 tons reached in 1952 and moderately above production in 1947, 1954 and 1955, the other post-war years for which data are available.

Table 1.--Charcoal production in the United States, selected years 1899-1956

Year	Production	Year	Production
1899	Tons 171,543 266,701 554,785 448,278 227,033 438,358 453,550 328,014	1939	Tons 250,780 306,192 213,660 251,784 214,481 237,770 264,990

Source: All years prior to 1955- Bureau of the Census, U. S. Department of Commerce. 1955 and 1956, Forest Service, U. S. Department of Agriculture.

While there has been no decided trend in charcoal production in recent years, present levels of production are considerably below those prevailing in the early 1900's. Most of the decline occurred between 1909 and 1939, a period when charcoal production decreased from 554, 785 tons to 250, 780. This decline in production was brought about primarily by the substitution of other materials for charcoal in the manufacture of metals and chemicals, and the loss of heating and cooking markets in slum areas of large cities.

For example, in the early 1900's the iron industry consumed a substantial part of the charcoal produced. By 1939 coke, except in smelting or working a few specialty grades of steel and other metals where particular properties were desired, had almost completely replaced charcoal. Central heating, gas, and electricity also replaced charcoal for cooking and heating in slum areas during the same period. The loss of chemical markets, however, was at a slower rate. In recent years, increased domestic use for picnics and outdoor cooking has offset the losses of chemical and other industrial markets, and total production has remained relatively constant.

### Charcoal production concentrated in the East

Charcoal production is concentrated in the East (table 2 and map 1). In 1956, 194 of the 240 known charcoal producers were located in this region. They collectively produced 259, 210 tons of charcoal or about 98 percent of total production. The Lake and Southern regions accounted for 37 percent and 28 percent, respectively, of all charcoal manufactured. California, with 39 plants that produced 4,650 tons of charcoal, was the only Western State where the industry was well established.

Eight large producers each manufacturing more than 5,000 tons of charcoal accounted for about 69 percent of the 1956 production, and 232 small producers accounted for the remaining 31 percent. More than half of the small producers manufactured less than 100 tons of charcoal each.

Table 2.--Number of 1956 producers, and charcoal production by region 1955-56

Region	Producers	Charcoal production		
Region	rioduceis	1955	1956	
	Number	Tons	Tons	
lortheast	65	33,900	32,000	
Southeast	46	18,650	26,890	
ake	12	88,400	96,830	
Central	42	21,000	29,230	
outhern	29	71,810	74,260	
alifornia	39	3,150	4,650	
ther West	7	860	1,130	
Total	240	237,770	264,990	

# Domestic production supplies nearly all charcoal needs

Although domestic charcoal producers supply nearly all of the charcoal used in the United States, small but increasing quantities are being imported (table 3).

Table 3.--Imports and exports of charcoal, 1952-56

Year	Imports	Exports
1952	3,290 3,328 5,806 6,521 13,522	(1) (1) (1) (2,665 (2)

<sup>1</sup> Not reported

Source: Bureau of the Census, U. S. Department of Commerce. U. S. Imports of Merchandise for Consumption and U. S. Exports of Domestic and Foreign Merchandise. Annual reports.

About 52 percent or 7,073 tons of the charcoal imported in 1956 originated in Mexico. Canada, Ceylon, and Japan accounted for nearly all of the remaining charcoal imports. Canada and Chile purchased most of the charcoal exported from the United States.

### Briquets a major product of charcoal plants

In 1956, 102,140 tons of briquets¹ was produced at charcoal plants. This production represented an increase of 28 percent over 1955 when some 79,620 tons of briquets was produced. The large increase in the quantity of charcoal briquetted reflects in part the increased demand of domestic picinic and outdoor cooking markets. Some of the increase, however, is attributable to replacement of lump charcoal by briquets which are preferred in domestic use. In addition to the production of briquets at charcoal plants 23,160 tons of charcoal was sold to independent briquetting plants. Total briquet production thus amounted to about 125,000 tons.

<sup>2</sup> Not available

<sup>1</sup> Briquetting represents a relatively new development in the charcoal industry. Originally, it was introduced as a means of utilizing fines that had only limited markets and which usually comprised less than 15 percent of the charcoal produced. With the sharp increase in demand for briquets, the supply of fines has not been large enough to meet requirements. Currently, a substantial tonnage of lump charcoal is crushed and manufactured into briquets.

# Producers sell to a variety of markets

Charcoal producers sold 84,640 tons of charcoal, exclusive of briquets, to industrial users in 1956 (table 4). Another 59,140 tons was sold to jobbers, 23,160 tons to briqueting plants not associated with charcoal producers, and 13,960 tons to "others," a miscellaneous group of buyers including wholesalers and retailers.

Table 4.--Charcoal marketed in 1956, by type of purchaser and region, 1956

	Charcoal purchased by						
Region	Jobbers	Industrial users	Briquetting plants	Other	Total		
	Tons	Tons	Tons	Tons	Tons		
Northeast	11,190	13,790	4,540	1,760	31,280		
Southeast	3,290	15,490	4,910	560	24,250		
Lake	6,630	15,940	50	8,620	31,240		
Central	8,620	7,980	11,820	490	28,910		
Southern	26,750	31,300	730	1,500	60,280		
California	2,330	50	1,050	170	3,600		
Other West	330	90	60	860	1,340		
Total	59,140	84,640	23,160	13,960	180,900		

Industrial sales were particularly important in the Southern, Southeast, and Lake regions where they accounted for more than half of the charcoal marketed. In California, on the other hand, less than 2 percent was sold directly to industrial users. In the Central region briquetting plants purchased about 40 percent of the charcoal marketed.

There are no precise data on consumption of charcoal by end use. Presumably, however, most of the charcoal briquetted and some lump charcoal or about half of the charcoal produced was consumed in domestic use, i.e., for picnics, outdoor cooking and in restaurants and railroad dining cars. Between 35 and 40 percent of the charcoal produced, including the charcoal marketed to industrial users and part of that sold to jobbers and others, was used for industrial purposes. The remainder was used for a variety of purposes, such as tobacco curing, water purification, poultry feed, and similar uses that have not been classified as industrial or domestic.

# Wide range in selling price of charcoal

In 1956 the average selling price of lump charcoal on a bulk basis ranged between \$35.35 and \$61.40 per ton (table 5). The average selling price for all producers was \$48.85 per ton. The highest average prices in bulk were received in the West and the lowest in the Southeast. The low price in the Southeast reflects the production of pine charcoal which usually sells at a lower price than hardwood charcoal.

Table 5.--Average weighted selling price of lump charcoal, by region, 1956

In bulk (per ton)	/
In bulk (per ton)	In bags (per pound)
Dollars	Cents
56.20	4.5
35.35	3.7
52.05	3.7
40.65	3.1
51.70	4.0
57.50	5.0
61.40	5.3
48.85	4.0
	Dollars 56.20 35.35 52.05 40.65 51.70 57.50 61.40

Because of handling, packaging, and other associated costs, the average selling price of charcoal on a packaged basis was considerably higher than the price of charcoal sold in bulk. It ranged between 3.1 and 5.3 cents per pound and averaged 4.0 cents (\$80 per ton) for the Nation.

No production costs were obtained in this survey. There were reports, however, that the industry was highly competitive and that the profit margins of some producers in certain areas were small. Large and medium-sized plants with efficient equipment and marketing organization apparently had a competitive advantage over small producers.

# Large number of kilns in operation

There were 1,516 kilns, including ovens and retorts, in the United States in 1956 (table 6). These included 604 concrete or cinder block kilns, 207 steel (beehive) kilns, 200 brick kilns, and 505 "other" kilns. The "other" kilns category includes retorts, ovens, pit and mound kilns, and a wide variety of improvised kilns such as converted tanks that have been adapted for charcoal production.

	Kiln type					
Region	Brick	Concrete or cinder block	Steel (beehive)	Other	Total	
	Number	Number	Number	Number	Number	
Northeast	65	85	9	34	193	
Southeast	15	80	111	117	323	
Lake	2	43	50	226	321	
Central	68	232			300	
Southern	36	76	37	80	229	
California	14	78		42	134	

Table 6 .-- Charcoal kilns, by type and region, 1956

Ninety-one percent or 1,366 kilns were located in the East. The Southeast region with 323 kilns led all others, followed closely by the Lake region with 321 and the Central region with 300 kilns. California, with 134 kilns, was the only region in the West with a significant number.

10

604

6

505

207

16

1,516

### Most charcoal kilns small in size

200

Other West----

Total-----

Of the 1,516 kilns in the United States, 28 percent had a capacity of less than 2 cords, 40 percent from 2 - 11 cords, and 32 percent more than 11 cords (table 7). Small kilns were particularly numerous in the Lake and Southeast regions where more than 60 percent of all kilns had a capacity of less than 2 cords. The large kilns (11 cords or more) were concentrated in the Central region.

Size of kiln is no indication of the production of individual producers because many producers use a series of small kilns in manufacturing charcoal. Total production of producers using multiple kilns may thus be quite large.

Table 7 .-- Charcoal kilns, by size class and region, 1956

Dagian					
Region	Under 2	2-5	6-10	11+	Total
Northeast	Number 17	Number 51	Number 62	Number 63	Number 193
Southeast	191	64	24	44	323
Lake	200	50	65	6	321
Central		58	22	220	300
Southern	11	69	73	76	229
California	2	24	34	74	134
Other West		4	8	4	16
Total	421	320	288	487	1,516

# Hardwoods preferred in charcoal manufacture

Of the 573,700 cords of wood used in charcoal manufacture in 1956, 92 percent, or 528,040 cords, consisted of hardwoods (table 8). Oak was the most important single species and accounted for 40 percent of the total. Birch, beech, and maple accounted for 45 percent, hickory 4 percent, and various other hardwood species the remaining 11 percent. Oak was the preferred species in the Southern and Central regions; most of the birch, beech, and maple was used in the Lake and the Northeast regions.

Table 8.--Wood consumed in charcoal production, by species group, form of wood, and region, 1956

	Hardwoods			Softwoods			All species		
Region	Round	Residues	Total	Round	Residues	Total	Round	Residues	Total
Northeast Southeast Lake Central Southern California Other West	Cords 37,270 8,720 170,460 50,690 102,540 9,180 1,930	65,430 18,770 27,240	Cords 67,940 13,860 235,890 69,460 129,780 9,180 1,930	Cords 310 35,480 30  7,800	Cords 960  480   600		Cords 37,580 44,200 170,490 50,690 110,340 9,180 1,930	Cords 31,630 5,140 65,910 18,770 27,240	Cords 69,210 49,340 236,400 69,460 137,580 9,180 2,530
Total	380,790	147,250	528,040	43,620	2,040	45,660	424,410	149,290	573,700

Softwoods, chiefly pine, accounted for 8 percent of the wood consumed in charcoal manufacture. Softwoods were used in quantity in only one region--the Southeast--where they comprised 72 percent of all wood used. Small volumes of softwoods, however, were utilized in all regions except Central and California.

# Roundwood accounts for 74 percent of the wood consumed

The consumption of roundwood or wood cut directly from trees in 1956 amounted to 424,410 cords, and accounted for 74 percent of the wood used in charcoal manufacture (table 8). Wood residues, i.e., slabs, edgings, chips, etc., from primary wood processing plants comprised the remaining 149,290 cords. Nearly all of the residues (99 percent) were from hardwood species.

Residues were utilized in all regions, although use was nominal in the West. In the Northeast, on the other hand, residues accounted for nearly half of the wood consumed.

# Residues cheaper than roundwood

The cost of residues delivered to plants in 1956 averaged \$8.75 per cord (table 9). This was moderately below the cost of roundwood which averaged \$11.70 per cord.

Table 9.--Weighted average cost per cord of wood delivered to charcoal plants, by form of wood, and region, 1956

Region	Roundwood	Residues
Northeast	Dollars 12.00 7.90 12.70 6.90 12.65 12.10 7.80	Dollars 7.50 2.70 9.25 5.90 11.70 6.50

The cost of residues and roundwood varied considerably among regions. The average reported cost of residues, for example, ranged between \$2.70 per cord in the Southeast to \$11.70 per cord in the Southern region. The average cost of roundwood varied between \$6.90 per cord in the Central region to \$12.70 in the Lake region.

An average of 2.2 cords of wood was used in the production of each ton of charcoal. Average wood costs per ton of charcoal produced thus ranged from \$19.25 for residues to \$25.75 for roundwood and comprised a substantial part of the price of charcoal sold in bulk.

# CHARCOAL PRODUCERS IN THE UNITED STATES, 1956

(This list may not include all producers and is subject to change as plants are sold or moved and as new plants are constructed).

Producer No.	Name	Post Office Address	Plant Location
N	ORTHEAST		
	Maine:		
1 2 3	Fowler, Luther Gilley, M. H., Sr. & Son Kazlaskas, P. L.	Round Pond Rt.#2, Coopers Mills East Eddington	Same Somerville East Eddington and Garland
	New Hampshire:		
4 5 6 7 8 9 10 11 12	Champney, Alfred Fenton, Paul J., Jr. Frink, Richard S. Kimball, Donald S. Lovering, Bernard S. New Canada Farms New England Forestry Foundation <sup>1</sup> New England Forest Industries, Inc. New Hampshire Forestry & Recreation Commission, Forestry Division White Mountain Charcoal Co.	62 Church St., Concord Andover RFD #L, Goffstown Thousand Acres, West Franklin Bunker Hill Road, Auburn Danbury 3 Joy St., Boston, Mass. 3 North State St., Concord Concord Box 23, West Rumney	Boscawen Same Dunbarton Same Same Same Danbury Boscawen Hillsboro Same
	Massachusetts:		
14 15 16	Ambler Lumber Co. <sup>2</sup> Howard Bros. Charcoal Co. New England Forestry Foundation	Box 93, Bellingham Star Route, Montague 3 Joy St., Boston, Mass.	Same North Leverette Several through- out State
	Connecticut		
17 18 19 20	Avery, Mahlon P. Auslander Brothers Connecticut Charcoal Co., The Connecticut State Park & Forest Comm.	Somers Corners Durham Rd., Madison RFD #2, Stafford Springs Hartford	Stafford Same Rt. 198, Union
21	Donderro, Marko, c/o Wallace Wallach	Haddem	Same
22 23 24 25 26	Hadfield, Myron Minor, Layton H. Park, Ripley B. White Memorial Foundation, The Woodward, K. W., Jr.	RFD, Moosup RFD, Westerly, R. I. North Stonington Litchfield Wheaton Rd., Marble Dale	Sterling Stonington Same Same Same
	Rhode Island		
27 28 29 30	Hall, Edwin N. Hazard, Thomas P. Peckham, James Wisniewski, Stephen <sup>1</sup> /	RFD #1, North Scituate Peace Dale RFD #2, North Scituate 119 S. Main St., Moosup, Conn.	Foster Same Foster Foster

See footnotes page 14.

Producer		Post Office	Plant
No.	Name	Address	Location
N	ORTHEAST (Continued)		
	New York:		
31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47	Adirondack Forest By-Products Co. B & C Charcoal Co. Black Dome Corp. 2 East Walden Charcoal Co. Gigliotti, Angelo Glowell Brand Charcoal Heartwood Products Co. Hutton, William Long Eddy Company Northeastern Fuel Co. Redfield Charcoal Co. Smiley Brothers 1 Sowalski, Joseph Susquehanna Chemical Corp. Thomas, Fenimore Warner, Donald F. Weinheimer, Arthur J. Wicks, Verne A.	P.O. Box 92, Bloomingdale Peck Hill Rd., South Otselic East Jewett East Walden 1118 Hammond Avenue, Utica Hampton Rd., Malboro 44 Hudson St., Warrensburg Booneville Long Eddy Warrensburg 63 Oswego St., Baldwinsville Mohonk Lake RFD #2, Averill Park P. O. Box 176, Bradford, Pa. Star Rt. #2, Owego Speculator Old Chatham Harrisville	Same Same Same Same Same Same Same Same
	Pennsylvania:		
49 50 51 52 53 54 55 56	Big Sandy Charcoal Co. Bradford Wood Products Co. Charcoal Froducts Co. Humphrey Brick & Tile Co. Kohl, Elmer Otto Chemical Co. Susquehanna Chemical Corp. Valley Chemical Co. Wyman Chemical Co., Inc.	Box 1785, Uniontown 304 Hooker-Fulton Bldg., Bradford 200 Davenport St., Dallas P. O. Box.45, Brookville RFD#1, Bowmansville Sergeant P. O. Box 176, Bradford Morris 304 Hooker-Fulton Bldg. Bradford	Same Port Barnett Same Same Custer City Same
	New Jersey:		
58 59	Payne, Herbert W. & Sons West American Coal & Charcoal Co.	Box 57, Lacy Rd., Whiting Mays Landing	Same Same
	Maryland:		
60 61 62	Eppler Wood Products Corp. Maryland Department of Forests & Parks Muirkirk Products Co.	P.O. Box 12, Dorsey State Office Bldg., Annapolis White Oaks, Silver Springs	Same Brandywine Laurel
	West Virginia:		
63 64 65 66	Allegheny Manufacturing Co. Bland, D. E. & Son Roseville Charcoal & Mfg. Co Sanders, Roy K. & Sons	Terra Alta Thomas P.O. Box 1188, Zanesville, Ohio Rowlesburg	Same Same Bentree and Swiss Macomber

67 Wilmott, Roy E.
SOUTHEAST

Florida:
68 Cabot Carbon Co., Retort Chemical

Div. P.O. Box 137, Gainesville Same
G9 Glidden Company Jacksonville Same
70 Southern Pine Extracts Company P.O. Box 867, Tallahassee Shamrock

Belington

Same

Producer Post Office			Plant	
No.	Name	Address	Location	
	SOUTHEAST (Continued)			
	Georgia:			
71 72 73 74 75 76 77	Cherokee Enterprises Dixie Coal Company Hagler, Ed High's Charcoal Co. Moore, Arthur Renfroe, Rudolf Talbrion Tree Farms	P. O. Box 251, Hogansville Greensboro 2221 King Way, Augusta Box 211, Leary 127 Horton Drive, Augusta Quitman Juniper	Same Same Same Williamsburg Same Thomasville Geneva	
	North Carolina:			
78 79	Alexander, Robert Big Oak Charcoal Co.	Black Mountain Rosehill	Same Rosehill, Garland and Warsaw	
80 81 82 83	Black Panther Insecticide Co. Blue Ridge Charcoal Co. Boyd, W. C. Carolina Charcoal and Chemical Co.	Sanford Box 542, Mt. Airy Union Mills Biltmore Plaza Office Bldg.,	Same Same Lake Lure	
84 85 86 87 88 89 90 91	Carr Lumber Co. Cummings, R. E. Dicks, R. P. Draper Corp. Edmonds, Kenneth Haywood, Harvey Hickory Charcoal Corp. Holcum, Floyd Holms, J. C.	Biltmore Pisgah Rt. #3, Box 200, Asheboro Rockingham Swamnanoa Pisgah Forest Beech Box 284, Raleigh Mars Hill c/o Black Panther Insecticide	Asheville Same Same Same Same Same Same Same Sam	
9 <b>3</b> 94 95 96 97 98	Huffman, Huston Jones, D. Steven <sup>3</sup> Kirkpatrick, Weaver Mace, Paul McIntyre, L. R.	Co. Sanford Box 30, Hildebran Clinton Waynesville Morganton Old Fort	Not Given Icard Same Same Same Same	
	North Carolina Department of Conservation	Bladen Lakes State Forest, Elizabethtown	Same	
99 100 101 102 103 104	Orton Plantation, c/o L. G.Sprunt Powell, Q. M. Stokes, Henry T. Surratt Hickory Charcoal Co. Extract Co. Wyatt, C. C.	P. O. Box 1303, Wilmington Mill Springs Spruce Pine Denton Andrews Pisgah Forest	Winnabow Same Altapass Same Same Same	
	South Carolina:			
105	Dargans! Superior Hardwood Charcoal Co.	Conway	Nightingale	

T02	Dargans' Superior Hardwood Charcoal Co.	Conway	Nightingale Plantation
106	Geiger Heyward	Rt. #1. Box 38, Iron	(Georgetown Co.)
107	Metts, E. W. & Sons Welding		Same

1209 Franklin St., Columbia Works Same Virginia:

108 Andersonville Same Anderson Trading Co. Appalachian Briquet and Charcoal Corp. 1922 Lewis Tower Bldg., 225 S. 15th St., Phila, Pa. 109 Appalachia

Produce:	Name	Post Office Address	Plant Location
	SOUTHEAST (Continued)		
	Virginia (Continued)		
110 111 112 113 114	Bishop, Claud Heath, J. Graham <sup>2</sup> Hicks, Henry Munger, Ernest L. Nesmith, Fisher H., Jr.	Rawlings Norwood Gordonsville South Boston Edgewood Farms, Madison Mills	Same Same Green Springs Wolf Trap Same
	LAKE		
	Michigan:		
115 116 117 118 119	Athens Hardwood Lumber Co. Cliffs Dow Chemical Co. Flantz Charcoal Co. Kingsford Chemical Co. Stock Forest Products Co. Minnesota:	Athens Marquette 5616 Buchanan, Vanderbilt Iron Mountain Glen Arbor	Same Same Same Kingsford Same
120		Brainerd	Same
121 122 123	Hanson, Wayne Knox, Pat Rum River Charcoal Co. St. John's Experimental Kiln	Shakoppe Cambridge Collegeville	Same Same Same
	Wisconsin:		
124 125 126	Gibson, L. W. Van Ert, Leo Wisconsin Charcoal Co.	Park Falls Rt. 2, Dells Lone Rock	Same Same Same
	CENTRAL		
	Missouri:		
127 128 129 130	Arcadia Charcoal Co. Barnhart Charcoal Co. Carnahan, A. S. J. Charcoal, Inc. (Elfrink Const.	Lesterville Meta Ellsinore	Same Same Same
131 132	Co.) Copeland Charcoal Co. Creech, Raymond	Box 3, Jackson Reynolds Dixon	Same Same Same
133 134 135 136	Craig Charcoal Co. Decker Charcoal Co. Evers Charcoal Co. Hardwood Charcoal Co.	Summersville Box 23, Eminence Meta Steelville	Same Same Same Same
137 138 139	Hedge, Walter Hedge, Walter Hickory Charcoal Co. J & M Charcoal Co.	Iberia Owensville Meta	Same Same Same
140 141 142	Langworthy, A. J. McDonald Charcoal Co. Meta Charcoal Co.	Salem Kansas City Meta	Same Argyle Same
143 144 145	Milum, Burl Morlen, Ray Osage Bluff Charcoal Co.	Gatewood Ellsinore Rt. 3, Jefferson City	Ponder Same Osage Bluff
146 147 148	Ridenhour & Noblet Charcoal Co. Rudroff, John Shulte Charcoal Co.	Belle Freeburg Henley	Same Same Same
149 150 151	Stegeman, Roman Sugar Creek Charcoal Co. Tarvid Charcoal Co.	Rt. 3, Jefferson City Meta Centerville	Taos Same Corridon

Produce		Post Office	Plant
No.	Name	Address	Location
	CENTRAL (Continued)		
	Missouri (Continued)		
152 153 154 155 156 157	Timber Products, Inc. Weed, D. J. Weiburg Charcoal Co. Werdehauser, Ed, & Ligers, Bill Wildwood Charcoal Co. Wulff Charcoal Co.	Lebanon Argyle Freeburg Jefferson City Marshfield Vienna	Same Same Freeburg and Salem Taos Same Vienna and Licking
	Illinois:		
158 159 160 161	Berger Bros., Inc. B. E. Moses Charcoal Co. Metcalf Charcoal Co. Murphysboro Charcoal Co.	Chicago, Ill. Cypress, Ill. Mt. Vernon Murphysboro	Belknap Parks Same Same
	Ohio:		
162 163 164 165	Oak Hill Charcoal Co. Ohio Valley Charcoal Co. Roseville Charcoal and Mfg. Co. Victory Charcoal Co.	Oak Hill Ironton Zanesville Oak Hill	Same Nelsonville Byesville Same
	Kentucky:		
166 166a 167 168	Cumberland Corp. <sup>2</sup> Kentucky Charcoal Co., Inc. Sno Van Charcoal Co. West Kentucky Charcoal Co.	Lexington Irvine Irvine La Center	Burnside Same Same Same
	SOUTHERN		
	Alabama:		
169 170 171 172 173 174 175 176 177 178 179 180 181	Belcher, W. A., Lumber Co. Bland, Ike Boggs, Alvin Caddis, Dexter <sup>2</sup> Coosa Charcoal Co. Corbin Pulpwood and Timber Co. Crawford, Norman Francher, Wiley Free State Charcoal Co. Garrison Brothers Lumber Co. <sup>2</sup> McCartha, Douglas Valley View Dairy Farms Wakefield Products Co.	Birmingham Rt. 1, Abbeville Delta Pineville P.O. Box 773, Rockford Opelika Marion Sardis Jasper Eufaula Tallassee Ft. Payne Russellville	Chelsea Same Same Not given Same Same Same Same Same Grayson Same Same Same
	Arkansas:		
182 183 184	Arkansas Charcoal Co. <sup>2</sup> Charcoal Producers, Inc. Crossett Chemical Co., a division of The Crossett Co.	Paris 114 Pine St., Crossett  Crossett	Same Fountain Hill Same
185 186	K-V Charcoal Co., Inc. Missouri Charcoal Co. <sup>2</sup>	Lewisville Cotter	Same Same

See footnotes page 14.

No. Name Address Loca SOUTHERN (Continued)  Louisiana:  187 American Tar & Turpentine Co.,	.1011
Louisiana:  187 American Tar & Turpentine Co.,	
187 American Tar & Turpentine Co.,	
187 American Tar & Turpentine Co.,	
Inc. <sup>2</sup> P.O. Drawer 352, Winnfield Same	
188 Louisiana Pine Products Co. Alexandria Same 189 Martin, Roy O., Lumber Co. Alexandria Otis 190 Termiteol Pine Chemical Co. <sup>2</sup> Covington Same	
Mississippi:	
191 Imes Tree Farm Woodland Same	
Oklahoma:	
192 Alabama Charcoal Co. Rt. 2, Westville Baron 193 K-P Charcoal Co. Coalgate Same	
Tennessee:	
194 Cooper, J. D., Co. Mayland Same 195 Charcoal Producers Association 196 Daddy's Creek Charcoal Corp. 197 Emerson, Sam B.² 198 Forest Products Chemical Co. 199 Pine Lake Tree Farm 200 Stokes, Henry T. 201 Tennessee Products Corp. Nashville Same Same Nashville Same Same Spruce Pine, N. C. Same Same Same Spruce Pine, N. C. Same	
Texas:	
202 Acorn Fuel Co. 1604 Westheimer St., Houston Conroe 203 Lone Star Charko Box 1551, Wells Same 204 Lone Star Charcoal Co. Quitman Same 205 Rarter B. Charcoal Co. College Station Hy. 6 a Rd.	nd Welborn
206 Texas Charcoal Co. Pittsburg Same	
ROCKY MOUNTAIN	
Arizona:	
207 Charkete Products Co. Reddington Same 208 Southwestern Chemical Co. 2801 E. Broadway, Tucson Same 209 Townsdin Ranch Reddington Same	
INTERMOUNTAIN	
Idaho:	
210 Idaho Charcoal Co. 1415 Warm Springs Blvd., Boise Same	
Montana:	
211 Carlson Brothers Basin Bernice	
PACIFIC NORTHWEST Washington:	
212 Oravetz Charcoal Co. P. O. Box 524, Auburn Summer	
See footnotes page 14.	

# PACIFIC NORTHWEST (Continued)

Oregon:

Name

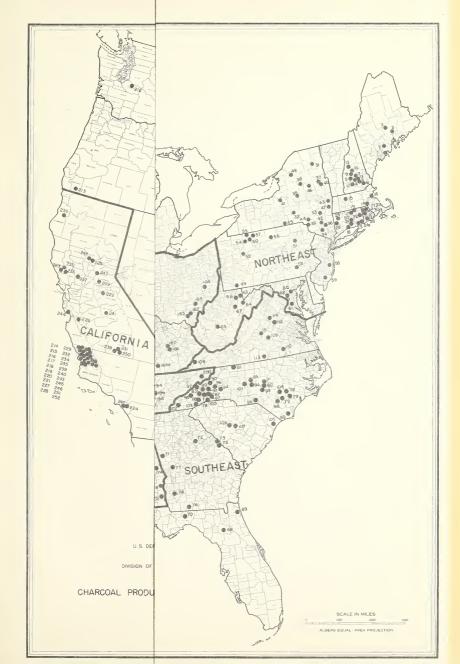
213 Jigg's Charcoal Rt. 1, Box 596, Cave Junction Illinois Valley

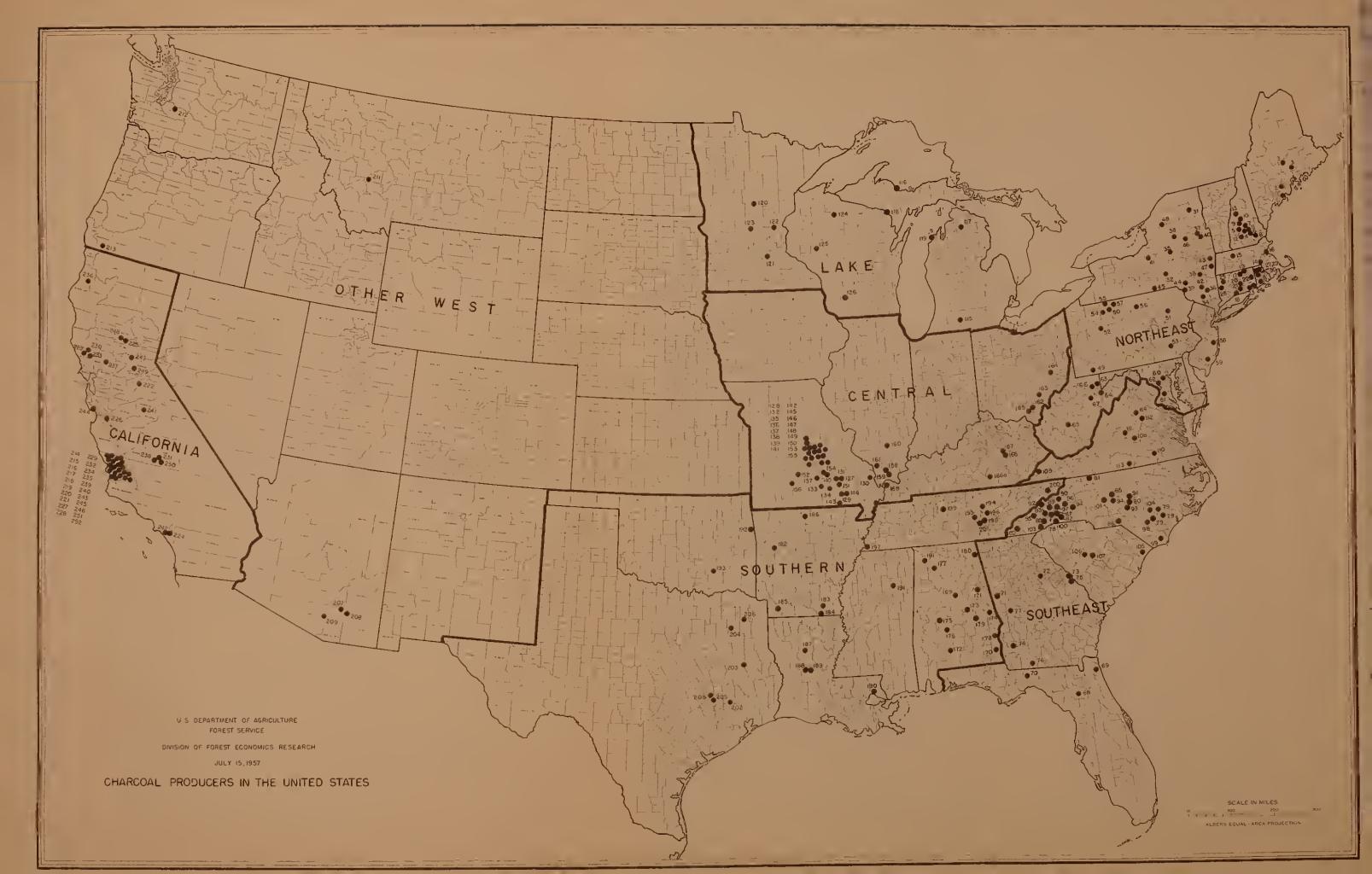
### CALIFORNIA

### California:

214	Alvarez, Frank	Rt. 1, Box 309, Atascadero	Same
215	B & H Charcoal Co.	Box 40, Templeton	Same
216	Ballasteros, Ubaldo	Box 23, Paso Robles	Same
217	Barajas, Mike	Rt. 1, Box 315, Atascadero	Paso Robles
218	Baroglio, Miles	Paso Robles	Same
219	Barraza, Pedro Molina	1126 19th St., Paso Robles	Same
220	Bassi, Fred	Rt. 1, Box 119, Templeton	Same
221	Busi, Jim	RFD, Box 97, Templeton	Paso Robles
222	Calaveras Firewood Corp.	Box 814, Murphys	Altaville
223	California Charcoal Co.	10437 Redwood Hgwy., Healdsburg	Same
224	California Charccal Products	1121 National Ave., National City	Santa Ysabel
225	Chudas, Martin	Adelaida	Same
226	Flores, Juan C.	1109 Lime Kiln Rd., Hollister	Same
227	Franklin Bros	Creston Star Rt., Paso Robles	Same
228	Galbreath, O. W.	Corbett Canyon Rd., Arroyo Grande	
229	Gates, LeRoy	Rt. 1, Templeton	Same
230	Gregory, Lawrence	Box 62, Healdsburg	Geyserville
231	Griswold, A. O.	Star Rt. 2, Springville	Same
232	Heaton, Alfred	Rt. 1, Box 66A, Paso Robles	Same
233	Hooper, D. B	1867 North Fitch Mt. Rd.,	- Camb
233	noopor, b. b	Healdsburg	Geyserville
234	Iversen, Roland E.	Bank of America Bldg., Paso	
	•	Robles	Union
235	James Bros.	Box 337, Atascadero	Same
236	Jones, Weldon, & Bardo Estrado	1440 Railroad Ave., Paso Robles	Willow Creek and
	•	·	Dover Canyon
237	Kelly Wood Products.	Box 118, Madison	Same
238	Killian, Roland R.	Star Rt. 2, Springville	Same
239	Lopez, Victor & Pilar Maduena	1146 1/2 19th St., Paso Robles	Same
240	Maduena, Juan	Box 201, Paso Robles	Same
241	Mariposa Charcoal Co.	Box J., Mariposa	Same
242	Nehu, Delmar	Santa Ysabel	Same
243	Padilla, Pascual	Box 371, Paso Robles	Same
244	Palomar Charcoal Co	Box 457, Pauma Valley	Rincon
245	Pena, A. M.	Rt. 1, Templeton	Same
246	Pesenti, Frank	Rt. 1, Templeton	Same
247	Placer Charcoal Co.	Box 16, Applegate	Same
248	Rosales, Jacinto <sup>3</sup> /	Adelaida	Same
249	Stollmeyer, Henry	Rt. 3, Box 267, Placerville	Same
250	Talbot, Courtney	Springville	Same
251	Thomas, Dorman	Rt. 1, Templeton	Same
252	Walker, Everett E.	Adelaide Rt., Paso Robles	Same

Idle in 1956.
 Under construction.
 Reported to be out of business in 1957.











.